

IN THE CLAIMS:

1. An apparatus for adding a coloring agent to material for brick making comprising:

an extrusion container having a hole defined in a sidewall thereof;

5 a coloring agent supply having an outlet port adapted to open into said extrusion container through said hole in said sidewall of said extrusion container;

a storage device which stores a coloring agent supply amount data corresponding to a supply amount for each of a plurality of brick types, each of said plurality of brick types having a different appearance; and

10 a controller adapted to control a supply of a coloring agent from said coloring agent supply into said extrusion container in accordance with a selected brick type.

2. An apparatus according to claim 1 wherein said extrusion container has an inlet and an outlet and said hole is provided at a position closer to said outlet of said extrusion container than said inlet of said extrusion container.

3. An apparatus according to claim 2 wherein said coloring agent supply further comprises a valve for controlling a fluid flow of said coloring agent to said extrusion container in said supply line.

4. An apparatus according to claim 1 wherein said extrusion container is conical.

5. An apparatus according to claim 1 wherein said coloring agent supply comprises a reservoir containing a coloring agent and a supply line providing fluid communication between said extrusion container and said reservoir.

6. An apparatus according to claim 1, further comprising a computer in data communication with said controller.

7. An apparatus according to claim 6 wherein said storage device is a memory in said computer.

8. An apparatus according to claim 1, further comprising:

a protruding rim structure on an interior of the extrusion container above said hole opening into said container.

9. An apparatus as claimed in claim 8 wherein said protruding rim structure is a pressure lip, and said hole is defined by a plurality of space openings into the container proximate to said pressure lip.

10. An apparatus according to claim 1, further comprising an injection ring fluid chamber with openings communicating into said fluid chamber.

11. An apparatus according to claim 1, further comprising a plurality of injection holes which open into said container and through which said coloring agent enters said container.

12. An apparatus according to claim 1, further comprising more than one hole which opens into said container, each supplying a different coloring agent into said container.

13. An apparatus according to claim 1, further comprising a segmented injection ring inside said container, each segment receiving a different coloring agent for introduction into the container.

14. An apparatus for adding a coloring agent to material for brick making comprising:

an extrusion container having an opening defined in a sidewall thereof;

a coloring agent supply communicating with said opening for delivery of the coloring

5 agent to the interior of the container as brick making material passes through the container.

15. An apparatus according to claim 14 wherein said extrusion container has an inlet and an outlet and said opening is provided at a position closer to said outlet of said extrusion container than said inlet of said extrusion container.

16. An apparatus according to claim 14 wherein said extrusion container is conical.

17. An apparatus according to claim 14, further comprising a plurality of injection openings into said container and through which said coloring agent enters said container.

18. An apparatus according to claim 14, further comprising more than one opening into said container, each supplying a different coloring agent into said container.

19. An apparatus according to claim 14, further comprising:
a storage device which stores the coloring agent supply amount data corresponding to a supply amount for each of a plurality of brick types, each of said plurality of brick types having a different appearance; and
5 a controller adapted to control a supply of a coloring agent from said coloring agent supply into said extrusion container in accordance with a selected brick type.

20. An apparatus according to claim 19, further comprising:
a plurality of openings in the sidewall of said container for delivery of the coloring agent to the interior of the container as brick making material passes through the container, and
5 a protruding rim structure provided on an interior of the extrusion container above said openings into said container.

21. An apparatus according to claim 20 wherein said protruding rim structure is a pressure lip, and said openings are provided at a position proximate to said pressure lip.

22. An apparatus according to claim 21 wherein said protruding rim structure defines an injection ring fluid chamber container for delivery of the coloring agent to the interior of said container.

23. An apparatus according to claim 22 wherein said injection ring is segmented, with each segment receiving a different coloring agent for introduction into said container.

24. A system for adding a coloring agent to material for brick making comprising:
an extrusion container having a hole defined in a sidewall thereof;
a coloring agent supply having an outlet port adapted to open into said extrusion container through said hole in said sidewall of said extrusion container;

5 a sensor which senses a condition of at least a portion of said coloring agent supply and outputs a result;

a storage device which stores a coloring agent supply amount data corresponding to a supply amount for each of a plurality of brick types, each of said plurality of brick types having a different appearance; and

10 a controller which receives an output of said sensor and determines an operational condition of said coloring agent supply based on said output of said sensor, and controls a supply of a coloring agent into said extrusion container in accordance with a selected brick type.

25. A system according to claim 24, further comprising a plurality of injection holes opening into said container and through which said coloring agent enters said container.

26. A system according to claim 24, further comprising more than one hole opening into said container, each supplying a different coloring agent into said container.

27. A system according to claim 24 wherein said coloring agent supply comprises a reservoir containing a coloring agent and a supply line providing fluid communication between said extrusion container and said reservoir.

28. A system according to claim 27 wherein said coloring agent supply further comprises a valve for controlling a fluid flow of said coloring agent to said extrusion container in said supply line.

29. A system according to claim 28 wherein said sensor senses a condition of a coloring agent amount in said reservoir.

30. A system according to claim 29 wherein said controller determines an operational condition of said valve based on an output of said sensor.

31. A system according to claim 24, further comprising a computer in data communication with said controller.

32. A system according to claim 24 wherein said storage device is a memory in said computer.

33. A system according to claim 24, further comprising:
a plurality of holes defined in the sidewall of said container, and
a protruding rim structure provided on an interior of the extrusion container above said holes opening into said container.

34. A system according to claim 33 wherein said protruding rim structure is a pressure lip, and said holes are provided at a position proximate to said pressure lip.

35. A system according to claim 34 wherein said protruding rim structure defines an injection ring fluid chamber, said holes opening out of said fluid chamber.

36. A system according to claim 35 wherein said injection ring is segmented, with each segment receiving a different coloring agent for introduction into the container.

37. A method of adding a coloring agent to material for brick making comprising the steps of:

providing an extrusion container which receives and discharges a material for making a brick, said extrusion container having a hole defined in a sidewall thereof;

5 storing a coloring agent supply amount corresponding to a supply amount for each of a plurality of brick types, each of said brick types having a different appearance; and

supplying a coloring agent to said extrusion container via said hole in said sidewall of said extrusion container in accordance with a coloring agent supply amount corresponding to one of said brick types.

38. A method according to claim 37 further providing:

supplying two or more different coloring agents to said extrusion container by way of two or more holes defined in the sidewall thereof.

39. A method according to claim 37 further providing:

recording the supply amount used in making such brick type so that said brick type can be reproduced at a later time.

40. A method of adding a coloring agent to material for brick making comprising the steps of:

providing a extrusion container which receives and discharges a material for making a brick, said extrusion container having an inlet opening defined in a sidewall thereof; and

5 injecting a coloring agent into said container as material for making a brick is passed therethrough to add colorant to said material.

41. A method according to claim 40 further providing:

supplying two or more different coloring agents to said extrusion container by way of two or more holes defined in the sidewall thereof.

42. A method according to claim 40 further providing:

recording the supply amount used in making such brick type so that said brick type can be reproduced at a later time.

43. A method claimed in claim 40, further comprising:

controlling the supply amount of coloring for each of a plurality of brick types, each of said brick types having a different appearance; and

5 supplying a coloring agent to said extrusion container via said opening in said sidewall of said extrusion container in accordance with the coloring agent supply amount corresponding to one of said brick types.

44. A method claimed in claim 43, further comprising:

injecting the coloring agent into said container through an injection ring positioned along the interior surface of said container.

45. A method claimed in claim 44, further comprising:

segmenting said ring such that more than one coloring agent may be injected through said ring into the container as said brick making material passes therethrough.

46. A method claimed in claim 44, further comprising:

injecting said coloring agent into said container at an angle from perpendicular to the surface of the container.

47. A method claimed in claim 44, further comprising:

injecting said coloring agent into said container through multiple openings into said container.